

The Honorable Ricardo S. Martinez

**UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE**

UNITED STATES OF AMERICA, et al.,

Plaintiffs,

v.

STATE OF WASHINGTON,

Defendant.

NO. C70-9213

Subproceeding 01-1 (Culverts)

STATE OF WASHINGTON'S
TRIAL BRIEF

I. SUMMARY

For many years the State of Washington has participated with our Federal and Tribal partners to ensure healthy and sustainable populations of salmon. Great strides have been made toward the goal of salmon recovery and restoration. Comprehensive plans are in place based on the particular needs of each watershed. Progress that has been facilitated by the enactment of pro-salmon legislation and backed up with the dedication of hundreds of millions of dollars. All of this progress has been accomplished in good faith and without the necessity of a federal injunction.

1 Taking heed of the Supreme Court's warnings in *Horne v. Flores*, 129 S. Ct. 2579
 2 (2009) regarding federalism in institutional reform cases,¹ the Ninth Circuit recently voiced its
 3 own concerns about the role of the federal courts in *United States v. Washington*:

4 The original injunction, entered 35 years ago, was intended to resolve the treaty
 5 right fishing disputes once and for all. Yet this case has become a Jarndyce and
 6 Jarndyce, with judges dying out of it and whole Indian tribes being born into it.
 7 The district court accurately stated fifteen years ago that "the court has become
 8 a regulatory agency perpetually to manage fishing." Judges in the Western
 9 District of Washington have now been regulating fishing in the Puget Sound for
 10 35 years, with the aid of a Fishery Advisory Board that the court created. The
 11 Constitution does not establish the district courts as permanent administrative
 12 agencies.

....
 13 It is hard to see what we achieve in our continuing adjudications. We pretend to
 14 be able to read the mind of the long deceased district judge who initially issued
 15 the decree on matters of which he did not speak. And we pretend to determine
 16 what the Indian tribes did 150 years ago at a time for which there is no evidence
 17 of especially high reliability and little evidence of any kind."

18 *United States v. Washington*, 573 F.3d 701, 709 (9th Cir. 2009).

19 It is undisputed that the remedy in this case would require institutional reform of the
 20 State's budget and a significant reallocation of salmon recovery funding. A reallocation that
 21 would establish a primacy for culvert remediation inconsistent with the scientifically based
 22 comprehensive approach currently in place for salmon restoration. Culvert remediation is
 23 already ongoing by the State as part of its efforts to address the complex problem of salmon
 24 restoration and was begun long before this sub-proceeding was commenced. Federal court
 25 intervention is unnecessary.

26 **A. The Requested Remedy is Unnecessary in Light of the State's Existing Approach to Salmon Recovery**

Because the State already has a robust program in place addressing salmon recovery
 which includes state barrier culvert corrections, the Court need not enter an injunction. A
 mandatory injunction does not automatically follow from the Court's 2007 declaration of a
 treaty violation. *Winter v. Natural Res. Def. Council*, 129 S. Ct. 365, 381 (2008) ("An

¹ 129 S. Ct. at 2593-2595.

injunction is a matter of equitable discretion; it does not follow from success on the merits as a matter of course"); *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 312-313 (1982) ("a federal judge sitting as chancellor is not mechanically obligated to grant an injunction for every violation of law"); *see also Northern Cheyenne Tribe v. Norton*, 503 F.3d 836, 843 (9th Cir. 2007) ("no rule requiring automatic issuance of a blanket injunction when a violation is found"). Plaintiffs carry the burden of establishing that: 1) there will be irreparable injury, 2) the balance of the hardships favors an injunction, 3) the injunction would not be adverse to the public interest, and 4) no remedy at law exists. *Los Angeles Memorial Coliseum Comm'n v. Nat'l Football League*, 634 F.2d 1197, 1200 (9th Cir. 1980); *Amoco Prod. Co., v. Village of Gambell*, 480 U.S. 531, 546 (1987). The elements of a permanent injunction mirror those of a preliminary injunction except that plaintiff must show actual success on the merits. *Winter* at 381.

A request for an injunction that would restrict the State's ability to make decisions about "basic policy, appropriations and budget priorities," is one for institutional reform. *See Horne v. Flores*, 129 S. Ct. at 2593 n.3; *see also U.S. v. Washington*, 573 F.3d at 709 (noting the similarities between the consent decree in *Horne* and *U.S. v. Washington*). The Tribes want the Court to order an increase to Washington State Department of Transportation (WSDOT) spending on its culvert corrections for 20-years by more than \$165,000,000 per biennium. Such an order will restrict the State's ability to spend on other programs, and whether they are transportation, salmon recovery or other public programs, finding this money will require changes to its policy, appropriations and budget priorities. In deciding whether to order such institutional reform, the Court should examine all of the State's efforts to address salmon recovery, not merely funding for state-owned fish passage barrier culverts. *See Horne* at 2603-06 (error to examine only the additional funding for English language learning programs and not the changes in policy which helped the State of Arizona comply with the federal law).

1 The balance of the equities in this case weighs against an injunction. Irreparable injury
 2 cannot be sufficiently established. Without an injunction, a holistic state approach to salmon
 3 recovery would still be in place. Since the 1990s, the State has created boards and offices
 4 whose sole function is to address salmon recovery.² It plays a key role in implementing the
 5 United States' treaty with Canada that ensures that Chinook salmon are not overharvested.
 6 Together with the Tribes it has worked to reform hatchery practices to promote abundance of
 7 wild salmon.³ It has been involved in relicensing efforts to make hydropower facilities more
 8 fish-friendly. And it has expended hundreds of millions of state dollars, and obtained hundreds
 9 of millions of dollars in federal funding, for habitat restoration projects.

10 Without an injunction, the State would continue to correct its fish passage barrier
 11 culverts. The Washington Department of Natural Resources (DNR) has fixed hundreds of
 12 culverts while this case has been pending. WSDOT has been finding and fixing fish passage
 13 barrier culverts since 1991, having performed 225 barrier corrections statewide. In partnership
 14 with the Washington Department of Fish and Wildlife (WDFW), WSDOT has developed the
 15 leading fish passage barrier correction program among transportation agencies in the country.
 16 WSDOT and WDFW prioritize corrections so that the projects that will benefit the most are
 17 done first. WDFW is nationally recognized for its leadership in the design of fish-friendly
 18 culverts. And WSDOT's expenditures on fish passage projects have increased every biennium
 19 since 1995.

21 _____
 22 ² Some of the many state entities involved in Salmon Recovery Activities include: the Puget Sound
 Partnership (RCW 90.71.210); the Salmon Recovery Funding Board (RCW 77.85.110); the Hood Canal
 Coordinating Council; and the Regional Fisheries Enhancement Groups (RCW 77.96.060 - .130).

23 ³ The State has worked collaboratively with stakeholders, including the Tribes, in the following
 24 organizations: Puget Sound Partnership Leadership Council, Puget Sound Partnership Ecosystem Coordination
 Board, Salmon Recovery Funding Board, Hood Canal Coordinating Council, Clallam Marine Resources
 25 Committee, San Juan County Marine Resources Committee, Skagit County Marine Resources Committee,
 Whatcom Marine Resources Committee, Nooksack Salmon Enhancement Association, Skagit Fisheries
 26 Enhancement Group, Stilly-Snohomish Regional Fisheries Enhancement Task Force, Mid-Sound Regional
 Fisheries Enhancement Group, South Puget Sound Salmon Enhancement Group, North Olympic Salmon
 Coalition.

1 While extensive state efforts would continue without an injunction, any potential
 2 benefits measured in tribal harvest increases are incalculable. Because of the numerous natural
 3 and human-caused factors which contribute to salmon health, no reliable estimate of amount of
 4 harvest increase that would result from fixing only state barriers can be performed. Any
 5 attempt to do so using potential habitat upstream from state culverts would also be complicated
 6 by the fact that, in addition to the state-owned (and inventoried) barrier culverts, thousands of
 7 known and a likely myriad of unknown barrier culverts of non-state ownership block fish
 8 passage in streams throughout the state and within the Case Area.

9 On the other hand, the cost of the injunction would require a monumental increase in
 10 the current funding levels for barrier corrections, money which necessarily comes from other
 11 State programs. State revenue projections forecast continuing declining revenues, and many
 12 critical education, health and public safety state programs are being eliminated. The balance of
 13 the hardships and the public interest favor allowing the State to continue with its existing
 14 program without court intervention.

15 **B. The Remedy Requested By The Tribes Is Not Tethered To Their Treaty Rights**

16 In *U.S. v. Washington*, 573 F.3d 701, 709 (9th Cir. 2009), the Ninth Circuit recently
 17 recognized that the State's programs do not discriminate against the Tribes' exercise of the
 18 treaty right of taking fish at usual and accustomed grounds and stations:

19 The point of the lawsuit the United States filed was to protect Indian treaty
 20 rights from state infringement, not to sort out competing tribal claims. That
 21 goal was achieved, and has nothing to do with the continuing exercise of
 22 jurisdiction as far as we can tell from the record. The goal of "provid[ing] a
 volume of fish sufficient to the fair needs of the tribes" seems similarly to have
 been achieved, as this dispute demonstrates.

23 The Tribes maintain that state-owned barrier culverts have diminished the number of
 24 fish available for harvest, but present no quantitative evidence regarding pre-barrier
 25 abundance, nor do the Tribes present evidence quantifying the amount of abundance reduced
 26 by state owned barrier culverts.

1 In *Fishing Vessel*, the Supreme Court articulated the extent of Tribal entitlement under
2 the Treaty:

3 Both sides have a right, secured by treaty, to take a fair share of the available
4 fish. That, we think, is what the parties to the treaty intended when they secured
to the Indians the right of taking fish in common with other citizens.

5 ...
6 We also agree with the Government that an equitable measure of the common
7 right should initially divide the harvestable portion of each run that passes
through a “usual and accustomed” place into approximately equal treaty and
nontreaty shares, and should then reduce the treaty share if tribal needs may be
satisfied by a lesser amount.

8 ...
9 It bears repeating, however, that the 50% figure imposes a maximum but not a
minimum allocation.⁴

10 The Tribes’ requested remedy accelerates the pace of barrier culverts remediation in
11 order to restore the fish runs that have been diminished due to the State’s barrier culverts. This
12 remedy erroneously assumes an entitlement to an historical level of abundance that existed
13 prior to existence of the State’s barrier culverts. No such entitlement exists under the Treaty

14 The remedy requested by the Tribes implicitly asks this Court to adopt some unknown
15 pre-barrier abundance of fish as a minimum benchmark with any State caused diminution of
16 available fish being actionable under the Treaty. Not only does the remedy exceed the
17 entitlements secured to the Tribes by the Treaty, the facts of this case demonstrate the inherent
18 uncertainty underlying the injunction requested by the Tribes. The pre-barrier level of
19 abundance is unknown. The amount of additional production necessary to achieve such a “pre-
20 barrier” level of fish is also unknown. Accordingly, it will never be possible to know when or
21 if the “pre-barrier” level has been achieved. It is not enough to simply claim more production
22 of salmon is better or is moving in the right direction. Such a claim is untethered to any right
23 secured by the Treaty. Furthermore, the Court should enter an injunction that is no more
24 onerous than necessary to achieve the desired result. In this case, the plaintiffs have not
25 produced sufficient evidence for the Court to know when compliance has been achieved. The

26 ⁴ *Washington v. Wash. State Commercial Passenger Fishing Vessel Ass’n*, 443 U.S. 658, 684-86 (1979).

uncertainty of the requested remedy in light of rights secured by the Treaty cautions against the issuance of an injunction. *See N.L.R.B. v. Express Pub. Co.*, 312 U.S. 426, 435-36 (1941) (reversing portion of injunction as overbroad); Fed. R. Civ. P. 65(d).

II. EVIDENCE⁵

A. Numerous Factors Contribute to Fluctuations in Salmon Populations

Many factors, both natural and human-caused, affect the health of anadromous salmonid⁶ populations. Natural factors include seasonal high water flows and floods, droughts, wildfires, volcanic eruptions, seasonally extreme temperatures, landslides, debris flows, ocean conditions, and predations (marine mammals, birds and other fish). Human-caused factors include land use practices such as urban growth and rural development, shoreline modifications, leaking septic systems, agricultural practices including grazing in riparian zones, conversion of forests, forest practices, and water pollution. Other anthropogenic factors include impoundments and diversion of water resulting in water quality or quantity problems, dams and hydropower operation, fish harvesting, and the potential for hatcheries to introduce non-native species. The existence of fish passage barrier culverts, the vast majority of which are not State-owned or operated, is but a single stand in a complex ecological web.

Over the last several decades, anadromous salmonid populations in the Case Area have fluctuated. Some stocks⁷ continue to exist in relative abundance while others are less healthy.⁸ The relative importance and effect of these many natural and anthropogenic factors varies from species to species and watershed to watershed. In some watersheds, barrier culverts may be

⁵ The information in this section was culled from the written declaration of State witnesses, the attached exhibits, anticipated rebuttal testimony, and anticipated stipulated exhibits.

⁶ In this matter for purposes of clarifying “culverts that block fish passage,” *fish* have been defined as “anadromous salmonids” and as such refers only to the following salmon species – Coho, chum, pink, Chinook, sockeye and steelhead.

⁷ The Western Washington Treaty Tribes and WDFW defined a “stock” as “The fish spawning in a particular lake or stream(s) at a particular season, which fish to a substantial degree do not interbreed with any group spawning in a different place, or in the same place at a different season.” Decl. of Koenigs, ¶ 8.

⁸ *See* W-085, Decl. of Koenigs, pgs. 3-9 for discussion regarding current populations in the Case Area and factors that affect them.

1 considered one of the major limiting factors, while in other watersheds they may not be a
2 factor at all.

3 Part of the reason for the variation in the impacts of barrier culverts on any particular
4 stock is that each species utilizes different portions of the stream system for its life-cycle.
5 Chum and pink salmon spawn in the lower reaches of rivers, i.e., the tidal areas, and then move
6 into the estuary to rear. Barrier culverts, mostly located above these spawning and rearing
7 areas, have relatively little effect on these species. In contrast, coho and steelhead salmon
8 generally move well upstream into the smaller reaches to spawn and rear. Chinook are
9 generally large river system spawners, but use smaller tributaries for rearing. Therefore, while
10 barrier culverts on state roads may affect the life cycles of coho and steelhead, their impact on
11 Chinook is much less.

12 **B. The State Has Made Significant Efforts to Address Salmon Recovery**

13 **1. The Washington State Legislature has enacted new laws protecting both** 14 **fish and fish habitat.**

15 In the late 1990s, Washington State adopted several key pieces of legislation to address
16 the declining health of salmon in Washington. Because the Endangered Species Act (ESA)
17 requires the development of recovery plans for listed species, in 1998 the state legislature
18 declared that it was in the state's interest to take the lead in responding to the ESA. The
19 legislature created the Governor's Salmon Recovery Office (GSRO) and directed it to
20 coordinate and assist in the development of recovery plans for "evolutionarily significant
21 units" or geographic regions of salmon in Washington. The 1998 legislation also created an
22 interim process for distributing funds to local entities for salmon habitat projects.⁹

23 That same year the legislature set in motion a process for comprehensive management
24 of water.¹⁰ This act authorizes "watershed planning units" to develop and make
25 recommendations about the allocation of water resources among various demands in the

26 ⁹ 1998 Wash. Laws ch. 246 (HB 2496).

¹⁰ 1998 Wash. Laws ch. 247 (HB 2514).

1 watershed. The work of watershed planning units can have a significant benefit to salmon
2 recovery by developing consensus among diverse stakeholders for protection and improvement
3 of in-stream flows as well as for water quality.

4 The following year, the legislature also directed new protections through forest
5 practices as they affect the recovery of salmon and other aquatic resources.¹¹ The legislature
6 found that by amending forest practice rules according to the recommendations in the “Forests
7 and Fish Report,” more than 60,000 stream miles would have improved conditions for salmon.
8 The legislature also directed that forest practice rules needed to be coordinated through “the
9 statewide salmon recovery process” and noted that investment in salmon recovery by forest
10 landowners would be of little value unless a comprehensive state plan was completed.

11 In 1999, the legislature also amended a previous law to require the Governor’s Salmon
12 Recovery Office to submit recovery plans “as an integral part of a statewide strategy”
13 developed consistent with guiding principles provided by the act. Released later that year, the
14 statewide strategy established a comprehensive approach for achieving not only salmon
15 recovery, but harvestable levels of fish. This legislation also created the Salmon Recovery
16 Funding Board (SRF Board) to coordinate the delivery of state and federal salmon recovery
17 funds to local entities.¹²

18 In 2003 the legislature created the Family Forest Fish Passage Program—a cost-share
19 program that helps small forest landowners correct fish passage barriers on their forestlands.¹³
20 The program provides between 75 and 100 percent of the cost of correcting a barrier and also
21 provides technical assistance. Three state agencies cooperatively manage the program.
22 Through this program, the legislature has provided more than \$12 million to assist small forest
23 landowners to remove barrier culverts on their land.

24
25 ¹¹ 1999 Wash. Laws Spec. Sess., ch. 4 (ESHB 2091). These are referred to later in this brief as the
“Forests and Fish” amendments to the Forest Practices Act and rules.

26 ¹² 1999 Wash. Laws Spec. Sess., ch. 13 (SB 5595).

¹³ 2003 Wash. Laws ch. 311 (HB 1095).

1 **2. State efforts address all four “Hs” – harvest, hatcheries, hydroelectric**
 2 **power, and habitat.**

3 The State of Washington, in partnership with federal, local and tribal entities, has
 4 created an integrated, holistic system of stewardship to protect and support salmon throughout
 5 their life cycle. Fisheries managers call this complex process “gravel-to-gravel” management,
 6 because it extends from the gravel streambeds where salmon first emerge from their eggs as
 7 fry, out to the open ocean where the salmon feed and mature into adults, and then back to the
 8 gravel of the natal streams where the adult salmon return to spawn and create the next
 9 generation. Human activity affecting salmon survival and recovery has been categorized into
 10 “4 H’s”—harvest, hatcheries, hydroelectric power, and habitat. Changes in each of these
 11 categories can positively affect salmonids, and each has its own price tag. *See generally*
 12 Koenings Decl.

13 *Harvest.* The State has partnered with both the Tribes and the federal government to
 14 draft and implement plans that reform the harvest practices related to Puget Sound Chinook.
 15 To help wild Chinook reach its spawning grounds, WDFW and the Puget Sound Treaty Indian
 16 Tribes jointly developed a Resource Management Plan (RMP) for Puget Sound Chinook under
 17 the ESA. The RMP provides the framework under which WDFW and the Tribes manage
 18 salmon fisheries that affect Chinook in the greater Puget Sound area. The current RMP will
 19 expire in 2010, and WDFW and the Puget Sound Tribes have already begun work on a new
 20 plan.

21 In 1985, the United States and Canada signed the Pacific Salmon Treaty, a framework
 22 for managing fisheries on stocks that migrate between the two countries. The 1985 Pacific
 23 Salmon Treaty Act sets up the infrastructure for implementing the Treaty in the United States.
 24 It provides a significant role for Washington State and Treaty Indian Tribes.¹⁴ Some of the
 25 significant agreements negotiated under the Pacific Salmon Treaty framework govern the

26

¹⁴ See 16 U.S.C. §§ 3632 – 3634; *Confederated Tribes & Bands of the Yakama Indian Nation v. Baldridge*, 898 F. Supp. 1477 (W.D. Wash. 1995), *aff’d*, 91 F.3d 1366 (9th Cir. 1996).

1 ocean harvest of Chinook that originate in Washington rivers and then migrate into Canadian
 2 and Alaskan waters before returning to Washington to spawn. Leaders from the State and
 3 Tribes completed the most recent Chinook agreement in 2008.

4 The 2008 agreement is expected to increase the number of both wild and hatchery
 5 Chinook salmon returning to Washington, giving state and tribal fishery managers in the
 6 *United States v. Washington* Case Area more latitude when planning fisheries on hatchery
 7 Chinook while protecting wild Chinook. NOAA Fisheries has also predicted that for most
 8 Puget Sound Chinook stocks the new agreement with Canada is likely to boost the number of
 9 wild Chinook that reach the spawning grounds. That will allow the fish to explore unused
 10 habitat, expand existing spawning areas, and pioneer new spawning grounds. *See* Koenings
 11 Decl., ¶¶21-29 for discussion of harvest reform efforts.

12 *Hatcheries.* Salmon hatcheries¹⁵ were initially created throughout the Pacific
 13 Northwest to stabilize the abundance of adult salmon primarily in order to support fisheries,
 14 without much thought given to the effects on wild salmon populations. At hatcheries, juvenile
 15 salmon are protected from predation and other population pressures before being released.
 16 However, the relationship between released hatchery fish and wild fish is a delicate one as
 17 hatchery fish can overcrowd wild fish once they mix as adults and insufficient identification
 18 can lead to overharvest of wild fish. To achieve even larger numbers of wild salmon, hatchery
 19 reform must be accomplished.

20 In 2004, a Congressionally-created body, the Hatchery Scientific Review Group
 21 (HSRG) issued a report containing over 1,000 recommendations for change at individual
 22 hatcheries, along with 18 recommendations to be applied across the entire system. Although
 23 the State and the Tribes have made substantial progress towards implementing these
 24 recommendations, those that remain are the most costly and time-consuming. Cost estimates

25 ¹⁵ The State, federal government, and the Tribes operate numerous hatchery facilities throughout the
 26 Puget Sound and Washington Coastal Regions. Between 2001 and 2003, the Hatchery Scientific Review Group
 reviewed more than 200 programs at over 100 hatcheries in the region. Koenings Decl. ¶32.

1 for capital funds range between \$100 and \$150 million to accomplish the HSRG-recommended
 2 reforms at state hatcheries in the Puget Sound region alone. Funding for reforms at all state,
 3 tribal, and federal hatcheries has been slow to materialize and lags behind funding for other
 4 salmon recovery efforts.

5 *Hydropower.* Although the hydroelectric dams along the Columbia River get the most
 6 public attention, others impact salmon health in the *United States v. Washington* Case Area as
 7 well. In 2008, the State and Tribes renegotiated a FERC license for two dams on the Baker
 8 River, a tributary to the Skagit. The new license includes provisions for improved salmon
 9 propagation facilities, better management of water flows for fish, means for getting fish past
 10 the dams, in-river fish habitat enhancement with gravel and woody debris, and strategies for
 11 controlling shoreline erosion. These measures are expected to increase salmon production,
 12 primarily sockeye, from the Baker River. In 2001, in partnership with the United States Army
 13 Corps of Engineers, Tribes and others, the State facilitated a \$4.8 million removal project of
 14 the Goldsborough dam in Mason County. This dam had previously blocked 14 miles of
 15 potential coho habitat.

16 *Habitat Restoration.* Habitat restoration is an umbrella term encompassing all efforts
 17 to improve Puget Sound, estuarine, and fresh-water habitat. As part of the package of salmon
 18 recovery legislation it enacted in the late 1990s, the legislature established a process under
 19 which regional salmon recovery organizations could form and develop regional salmon
 20 recovery plans.¹⁶ WDFW and the Tribes were involved in two such plans, the Puget Sound
 21 Salmon Recovery Plan and the Hood Canal Chum Recovery Plan. The 50-year Puget Sound
 22 Salmon Recovery Plan takes an ecosystem approach across 14 local watersheds. Planned
 23 actions include estuarine restoration, nearshore habitat restoration, floodplain restoration,
 24 streamside riparian habitat restoration, measures to create better water flow conditions for fish,
 25 efforts to clean up pollution, and fish passage barrier correction.

26 ¹⁶ RCW 77.96.060 - .130

1 The Salmon Recovery Funding Board (SRF Board) allocates funds appropriated by the
 2 state and federal government for restoration and protection projects proposed by “lead entities”
 3 – local watershed-based organizations comprised of county or tribal staff, a committee of local,
 4 technical experts, and a committee of local citizens. The Board generally funds projects that its
 5 technical advisors conclude will have significant benefit to salmon, a high certainty of success,
 6 and a good ratio of cost compared to the anticipated benefits.

7 Since 2000, the SRF Board has funded 430 projects in the Puget Sound Region, totaling
 8 more than \$131 million. Grant recipients have provided nearly \$84 million in matching funds,
 9 for a total investment of more than \$215 million. During the same period, the SRF Board has
 10 funded 80 projects in the Hood Canal Region totaling more than \$24 million. Grant recipients
 11 have provided nearly \$19 million, for a total investment of \$42.3 million. In addition to the
 12 State monies spent on these projects, the SRF Board has obtained \$233 million of federal
 13 Pacific Coastal Salmon Recovery Fund (PCSRF) for Washington State.

14 **C. Barrier Culverts– Not Simply a State, but a “Ubiquitous” Problem¹⁷**

15 Culvert design, philosophies, and objectives have evolved over the past century.
 16 Where a road crosses a stream, one objective is to ensure the water flows safely under that
 17 road. Traditionally, culvert engineers focused on the hydraulic characteristics of culverts: the
 18 capacity of the culvert to pass a given volume of water per unit time (for example, the 50-year
 19 recurrence interval peak flood), without damage to the road. Standards of practice arose
 20 around this sort of requirement. Such standards continue to dominate culvert design in many
 21 states, and are still used in non-fish bearing waters in Washington.

22 **1. The State owns only a small portion of statewide barrier culverts**

23 The State is responsible for less than one quarter of the *known* (inventoried) barrier
 24 culverts statewide, with more than 75% of the known barrier culverts owned by private entities
 25

26 ¹⁷ Tribal witness Mike McHenry refers to the ubiquitous nature of barrier culverts of all ownerships throughout the Lower Elwha Klallam Tribe’s usual and accustomed fishing areas. AT-003, testimony at 8.

or under other jurisdictions (e.g., federal government, cities, counties, and public utility districts). Because there has been no comprehensive inventory of non-state barriers, this 1:3 ratio likely overstates the State's share by a wide margin. For the vast majority of streams with state-owned barrier culverts, numerous other barrier culverts (not owned by the state) exist both upstream and downstream of the state-owned barrier. For example, within the Squalicum/Baker Creek watershed in Whatcom County, there are eight state-owned barrier culverts -- six partial barriers and two complete. But throughout this watershed an additional 80 non-state owned barrier culverts block fish passage. Within the Little Bear Creek watershed located between Seattle and Everett there are nine state-owned barrier culverts -- four partial barriers and five complete. But 113 non-state owned barrier culverts are interspersed among those nine owned by the state. These disparities occur even in more rural areas. For example, in the Coffee Creek watershed located just outside of Shelton, there is one state-owned partial barrier culvert along SR 101, but elsewhere in the watershed there are 29 additional non-state owned barriers. And these 29 are just the *known* barrier culverts under other ownerships.

2. Washington's hydraulic code and other statutes pertaining to barrier culverts are insufficient to remedy privately-owned barrier culverts.

State civil and criminal statutes provide WDFW with authority to require the removal of non-state barrier culverts but they require up front state funding to remediate the barriers. RCW 77.57.030(1) requires that an obstruction in a stream shall be provided with a fishway that freely passes fish. In 1950, the Attorney General's Office concluded that this law applies to highway culverts as well as to dams. If an owner of an obstruction fails to remove it or provide it with a fishway, WDFW has three enforcement options. Under the civil statute, WDFW may serve a written notice to comply¹⁸ on the owner of the obstruction. If the owner fails to remove the obstruction or construct a fishway after an order has become final, WDFW

¹⁸ Such written notice includes a right of appeal under the state APA. *See Creveling v. Dep't of Fish & Wildlife*, 177 P.3d 136 (Wash. Ct. App. 2008).

1 may remove the obstruction or construct a fishway and WDFW's expenses may become a lien
 2 on the owner's property.¹⁹ Alternatively, if the owner fails to remove the obstruction or
 3 construct a fishway, WDFW may take possession of it and destroy it at state expense.²⁰
 4 Obstructions built before September 1963 are "grandfathered," and any remediation work that
 5 WDFW performs on them is done entirely at state expense.²¹ All of these approaches to
 6 barrier remediation require funding and personnel, both of which continue to be strictly limited
 7 at WDFW given the current economic climate.

8 The criminal statute states that failure to provide a fishway for a stream obstruction is a
 9 gross misdemeanor. Once WDFW has notified the obstruction owner that there is a violation,
 10 each day is a separate offense.²² Considering the many other criminal matters the counties'
 11 prosecutors must attend to, it is not surprising that violations of this statute are infrequently
 12 charged.

13 **D. The State Has Developed a Program to Find and Correct its Barrier Culverts**

14 The barrier culverts owned by the state are found on lands maintained by DNR,
 15 WDFW, Parks and Recreation, and WSDOT. The roads on these lands, and the culverts that
 16 run beneath them, differ greatly depending upon their type and use. Consequently the
 17 complexity and cost for correction of the barrier culverts differs greatly among the various
 18 departments.

19 **1. DNR has made significant progress in its inventory of culverts and its** 20 **remediation program**

21 DNR manages a road system of 12,000 miles statewide on 2.1 million acres of forest
 22 lands. Although DNR has some paved road, forest roads -- used to access and manage the
 23 forests or to provide public access to land for recreation -- account for most of the 12,000
 24 miles. These roads are managed according to the guidelines set forth in the Forest Practices

25 ¹⁹ RCW 77.57.030(2)(a).

26 ²⁰ RCW 77.57.030(2)(b).

²¹ RCW 77.57.040; *see Dep't of Fisheries v. Chelan County PUD*, 588 P.2d 1146 (Wash. 1979).

²² RCW 77.15.320.

1 Act. These regulations apply to approximately 9 million acres of private and state owned
 2 timber land in Washington. DNR's land base, and hence its road system and culvert inventory,
 3 is continually modified through monthly land transactions that, among other things, seek to
 4 achieve larger blocks of land ownership, or to obtain parcels that better fit its future
 5 management plans.

6 The DNR manages its Case Area lands under two Habitat Conservation Plans (HCP)
 7 under the Endangered Species Act.²³ Both plans provide DNR with Incidental Take Permits
 8 from NOAA-Fisheries Service and U.S. Fish and Wildlife Service under section 10 of the
 9 Endangered Species Act for all listed salmonid species. Not only does DNR follow the
 10 regulatory requirements of the Forest Practices Act with respect to its Road Maintenance and
 11 Abandonment Planning, but also as to the remediation of its culverts. The U.S. Forest Service
 12 applies the same road maintenance standards to its own lands. These provisions require DNR
 13 and other forest landowners to remove culverts that block the passage of fish statewide and
 14 regardless of whether the species using the stream is resident or anadromous. This case
 15 concerns only a subset of that universe; anadromous barriers within the Case Area.

16 The "Forests and Fish" amendments to the Forest Practices Act and rules set a deadline
 17 of July 2016 for the remediation of all fish passage barriers [on forest roads] statewide. DNR
 18 actually began inventorying its roads statewide in an effort to locate barrier culvert prior to
 19 these legislative changes taking effect.

20 DNR has made excellent progress. Its statewide inventory located a total of 1447
 21 culverts that were barriers to either anadromous or resident fish, 860 within the Case Area.
 22 Since 2001, DNR fixed 744 barriers statewide and 405 barrier culverts within the Case Area.
 23 Of the 455 remaining barriers in the Case Area, only 228 block passage of anadromous
 24 salmon.

25
 26 ²³ The "Forests and Fish" amendments to the Forest Practices Act and rules received HCP status and
 Incidental Take Permits from the Federal Services in 2006.

1 DNR's primary funding source for road maintenance is called the Access Road
2 Revolving Fund (ARRF). This account is funded primarily from fees added onto DNR timber
3 sales. DNR also fixed about 20% of its barrier culverts as part of the contract obligations
4 placed on DNR timber purchasers. Because timber sales have slowed with the economic
5 downturn across the last two years, DNR's ARRF account presently lacks the funds needed to
6 complete all statewide repairs by the 2016 deadline. Despite this, DNR believes it still can
7 remediate the remaining Case Area anadromous barriers by the end of the 2016 repair year.

8 **2. WDFW's and Parks' Culverts and Remediation Program have made**
9 **progress despite limited funding**

10 The WDFW and the Washington State Parks and Recreation Commission (State Parks)
11 both manage lands in Washington, primarily for public recreation and conservation purposes.
12 WDFW owns about 550,000 acres of land statewide in Wildlife Areas managed for wildlife
13 habitat and public recreation, water access sites where people can launch boats to go fishing,
14 and fish hatcheries. WDFW owns roads that provide access to these areas. WDFW roads are
15 small, one- or two-lane paved and unpaved roads. State Parks manages 120 sites around the
16 state for public access and recreation. Like WDFW's, State Parks' roads are small.

17 WDFW started a statewide inventory of culverts on lands it manages in 1997. It has
18 completed the inventory within the Case Area and found 71 barriers to fish passage, only some
19 of which block anadromous passage. WDFW fixed or removed seven of its barrier culverts in
20 the Case Area in 2008. Under a contract with State Parks, WDFW has also performed a partial
21 inventory for barrier culverts on State Parks' lands statewide. Thus far, 89 fish passage
22 barriers have been found on State Parks' land within the Case Area. Only some of them block
23 anadromous passage.

24 WDFW and State Parks have identified July 2016 as the goal for completing their
25 culvert repairs. Both agencies depend on appropriations from the legislature to complete their
26

1 culvert work, however. In the 2009-2011 biennium, the legislature was not able to appropriate
2 all the funding requested.

3 **3. Barrier Culvert Remediation Work within the State Highway System**

4 According to WSDOT's transportation data office, the state highway system manages
5 7,053 centerline miles throughout the state. Ninety-seven percent of these miles were
6 constructed prior to 1970. While these 7,053 centerline miles are comprised by some of the
7 most well-known roads, they constitute only a small portion of the total centerline miles in the
8 state. An additional 83,432 miles of road (and the culverts that run beneath them) fall under
9 the jurisdiction of cities, counties, and others. Many of the culverts that currently pass under
10 the state highway system were installed when the road was constructed decades ago; those
11 culverts were designed and installed based on standard engineering methods issued by the
12 Federal Highway Administration (FHWA) at the time of construction.

13 Some culverts designed according to those methods are now considered to be partial or
14 complete barriers to fish passage. In part, this is because fish passage criteria have evolved
15 over time; designs once thought to be passable are now known to block fish passage under
16 some circumstances. But due to the dynamic nature of streams, a once passable culvert can
17 become a fish passage barrier. Such a change might occur gradually over the course of years,
18 or it could be triggered by a single high flow event.

19 At no time prior to the filing of this action did the FHWA ever notify WSDOT that the
20 engineering standards it issued, and upon which WSDOT relied, failed to provide fish passage
21 or might violate treaty fishing rights. Nevertheless, in the early 1990s, after being notified by
22 the WDFW that in some circumstances culverts designed according to the federal guidelines
23 failed to provide for fish passage, WSDOT began taking corrective action.

1 **4. WSDOT's Comprehensive Program for Identifying, Prioritizing, and**
 2 **Correcting its Barrier Culverts**

3 In 1990, the State began taking a systematic approach to fish passage. WSDOT and
 4 WDFW executed a Memorandum of Understanding in 1990 in which they agreed to conduct
 5 an inventory of fish passage barriers on WSDOT rights-of-way. The 1991 Washington
 6 Legislature appropriated funds for WSDOT to remove six known fish passage barriers and to
 7 work with what is now WDFW to identify additional fish passage barriers and prioritize them
 8 for removal. Later that year, WSDOT and the Washington Department of Fisheries executed a
 9 second agreement to perform a statewide fish passage inventory and to develop plans to
 10 remove fish passage barriers.

11 Over the course of the 1990s the WDFW/WSDOT approach to addressing the barrier
 12 problem evolved into the following system: (1) find and evaluate the culverts that block fish
 13 passage; (2) record the information in a database; (3) prioritize the culverts for correction in
 14 order to get the most "bang for the buck;" (4) "scope" each correction project; that is, evaluate
 15 the site and possible fish passage solutions; (5) design a suitable structure that will achieve fish
 16 passage; (6) install it; and (7) after construction, monitor to see whether it worked.

17 **a. Inventory**

18 WSDOT contracted with WDFW to inventory its culverts beginning in 1991. The
 19 inventories are road based and very time consuming.²⁴ WDFW crews of two people visit each
 20 culvert, walk the stream, and take measurements in accordance with WDFW barrier
 21 assessment protocols. The protocol currently has two parts: Level A and Level B. Level A
 22 consists of the crew taking measurements of the culvert and the stream and looking inside the
 23 culvert to see whether streambed material is present. The crew may rely on its professional
 24 judgment to gauge the extent of impassability, assigning the designations full barrier (90-
 25 100%), two-thirds barrier (50-90%), one-third barrier (10-50%), or no barrier (0-10%).

26

²⁴ WDFW records and maintains all information about inventoried culverts in the Fish Passage and
 Diversion Screening Inventory (FPDSI) database.

1 If the results of the Level A analysis are inconclusive, the crew performs a Level B
 2 analysis, in which they measure water velocity inside the culvert under certain conditions. If
 3 the calculated velocity exceeds the value for adult trout in Table 1 of Section 220-110-070 of
 4 the Washington Administration Code, the culvert is considered to be a barrier to fish passage.²⁵
 5 The idea behind this method is that if fish are not strong enough to swim upstream against fast-
 6 moving water inside the culvert most fish will not be able to get through it.

7 The scope of streams WDFW selected to inventory has changed over time. Initially,
 8 WDFW only inventoried streams with a gradient of 7% or less as anything steeper was
 9 considered beyond the swimming abilities of salmon. In 1995, after it had inventoried 1,333
 10 barriers, WDFW increased the stream gradient to 12% to account for the swimming abilities of
 11 steelhead. In 1998, it increased the gradient to 20% to account for resident fish.²⁶ Each of
 12 these changes was made in an effort to respond to the best available science at the time.
 13 WSDOT funded additional survey crews, but with the expanded universe of streams came an
 14 extension of the time necessary to complete the inventory.

15 In 2007, WDFW completed the statewide inventory of WSDOT's culverts and put the
 16 number of fish barrier culverts – statewide – at 1,893. As of March 2009, WDFW concluded
 17 that solely within the *United States v. Washington* Case Area the number of WSDOT barrier
 18 culverts is 941 (788 with greater than 200m of upstream habitat and 153 with less than 200m
 19 of upstream habitat).

20 **b. Habitat Surveys and Prioritization**

21 If an initial assessment shows that a culvert partially or completely blocks more than
 22 200 meters of potential habitat, it is designated for a more extensive habitat assessment under
 23 one of the methods described in WDFW's Fish Passage Barrier and Surface Water Diversion
 24

25 ²⁵ For more about WAC 220-110-070, please refer to Paragraph 48 of the Declaration of Paul Sekulich
 and the Declaration of Robert Barnard, P.E.

26 ²⁶ Although the Tribes are only concerned with six species of fish in this case, the state's program to
 identify and correct barriers has always focused on all types of fish, both within the Case Area and statewide.

Screening Assessment and Prioritization Manual (2000 version attached as Exhibit E to the Declaration of Paul Sekulich, Ph.D.). WDFW has scheduled its habitat assessment work by starting with the streams thought to have the most blocked habitat, so that the culverts believed to be the highest priority to fix could be scheduled for correction as soon as possible. As with the initial inventory, the habitat assessment is a slow and grueling process that requires WDFW crews to visit each culvert, walk the stream, take measurements, and record their observations. With three crews, WDFW expects to complete all habitat assessments for state highways in the Case Area by January 2013.

Information collected during the course of the barrier inventory and habitat assessment is then used to generate a Priority Index (PI) number for each barrier. WDFW created the PI number system in the early 1990s as a way to help WSDOT schedule correction projects in the most cost-effective manner so as to maximize fish benefits. The PI formula is as follows:

$$PI = \sum_{\text{all species}} \sqrt[4]{[(BPH) \times MDC]}$$

[PI = Fish Passage Priority Index number for a particular project, indicating the relative benefit of the project considering cost.

Σ = A mathematical symbol indicating that individual values are to be summed. The overall project PI is the sum (Σ all species) of individual PI values calculated for each species present in a stream (e.g., PI coho is added to PI chum to obtain PI all species).

$\sqrt[4]{}$ = Quadratic root symbol. The quadratic root is used because otherwise the equation would generate an unwieldy range of gigantic numbers.

B = Proportion of passage improvement achieved from a particular culvert correction project—roughly reflects whether the culvert is a partial or total barrier to fish passage and gives greater weight to projects that would correct total barriers.

P = Annual adult fish production potential per m² of habitat opened up if the culvert were fixed – gives greater weight to projects that have the potential to produce the most fish. Each species has its own “P.”

1 H = Habitat gain in square meters (m²) – the amount of habitat that would be
 2 opened up if the culvert were fixed – gives greater weight to projects that would open up more
 habitat.

3 M = Mobility Modifier – gives greater weight to projects that would open up habitat
 4 for anadromous species.

5 D = Species Condition Modifier – gives greater weight to less healthy species.

6 C = Cost Modifier – gives greater weight to less costly projects. Anything over
 \$500,000 is considered to be a high cost project.²⁷

7 Sometimes, a single stream may have multiple barriers to fish passage. But when WDFW
 8 calculates a PI for a culvert, it assumes that particular culvert is the only barrier in the
 9 watershed because there no information about when the others might be fixed. When WDFW
 10 calculates “H” for a culvert, it includes all fish habitat upstream of the culvert, even though
 11 there may be other fish passage barrier culverts upstream. And because the habitat inventories
 12 are not yet complete, PI numbers do not yet exist for all WSDOT barriers.

13 To date, WSDOT has spent over \$14,000,000²⁸ on all inventory, habitat assessment,
 14 and prioritization work that WDFW crews are performing on WSDOT roads.

15 **c. State guidelines permit three fish passable culvert design methods**

16 Current WDFW regulations (WAC 220-110-070) and guidelines provide for three
 17 methods of culvert design: 1) hydraulic, 2) no-slope, and 3) stream simulation. The hydraulic
 18 method focuses on the swimming abilities of adult salmon and trout and ensures the passage of
 19 particular species for a given percentage of time. Because it focuses on water velocity, the
 20 implementation can result in retrofits of existing culverts using baffles and weirs, fish ladders,
 21 or three-sided box culverts. Currently, the hydraulic method is most frequently employed for
 22 retrofitting an existing barrier culvert.

23 To help small landowner install culverts without expensive engineering, WDFW
 24 developed the “no-slope” culvert design. Instead of relying on complicated hydraulic analysis,

25 ²⁷ For a greater discussion of the creation and use of the Priority Index, see W-087, Sekulich Decl., ¶¶21-
 26 39.

²⁸ Cost calculated in 2009 dollars.

1 it relies on the width of the stream channel as the design parameter. The name comes from the
 2 fact that the design requirements do not permit for any slope between the inlet and the outlet.
 3 The culverts can be either round corrugated metal or 3-sided cement box structures. No-slope
 4 culverts are practical only in portions of streams where the gradient is minimal. Hundreds of
 5 no-slope culverts have been designed and constructed throughout Washington State. When
 6 applied in the right circumstances and properly designed and constructed, no-slope culverts
 7 continue to perform satisfactorily for fish passage.

8 In the mid-1990s, WDFW engineer Robert Barnard developed the third alternative –
 9 the stream simulation design -- as it became increasingly clear that a design was needed that
 10 would avoid the complexity of the hydraulic-method and could be used at steeper gradients
 11 than could the no-slope alternative. Like the no-slope method, the stream simulation design
 12 focuses on the width of the stream channel. The minimum width of the bed inside the culvert
 13 must be 1.2 times the bank full width of the stream plus two feet.²⁹ The stream simulation
 14 design method was formally developed in 1999 and has since become commonly accepted. It
 15 is now widely used by the State as has been adopted in other jurisdictions, and initial studies by
 16 Mr. Barnard have found culverts designed on this basis to be performing well.

17 Stream simulation culverts are currently the preferred design method of the three
 18 permitted by Washington State law. But that was not always the case. Throughout the 1990s,
 19 the hydraulic method and the no-slope method were considered the best available science. The
 20 State continues to conduct research on the swimming abilities of juvenile salmon, but the
 21 results in no way suggest that the hydraulic method should be abandoned.³⁰

22
 23

²⁹ For a more detailed discussion of the stream simulation model, *see* W-089, Decl. of Barnard ¶¶ 9-11.

24 ³⁰ Since 1994, several state and federal agencies, including WDFW, have participated in studies of
 25 juvenile salmon swimming abilities at WDFW's Skookumchuck Hatchery near Tenino, Washington. In 1997, Pat
 26 Powers of WDFW conducted a WSDOT-funded study involving juvenile coho salmon, which showed better
 passage in smooth pipes. In 2005-06, Battelle conducted another WSDOT-funded study on juvenile coho salmon
 passage through culverts retrofitted with baffles. The results suggest that baffles may make it easier for juvenile
 fish to swim upstream, but that juvenile fish behavior is complex.

1 **d. Scoping**

2 For WSDOT culverts, the Fish Passage Priority Index formula typically generates PI
3 numbers that range from 1 to 62. Other types of structures, such as dams, may generate higher
4 numbers. In general, the higher a culvert's PI number, the higher the priority to fix the culvert.
5 PI numbers are a valuable tool that decision-makers can use to compare culverts, but they do
6 not in themselves dictate the order in which WSDOT fixes barrier culverts. WDFW and
7 WSDOT use a scoping process in which biologists, engineers, and others consider practical
8 factors such as construction feasibility or the presence of other blocking culverts. Challenging
9 geology may be a reason to conduct a repair at an easier site first. Sometimes, culvert repair
10 projects are selected so as to match costs with available funds. Projects may be spread around
11 regionally to avoid overwhelming staff in one area, or concentrated in one area to be efficient.
12 The aim is to get the greatest benefit from the resources available.

13 When selecting a correction design during the scoping process, WSDOT coordinates
14 with resource agencies, tribes, and other interested parties to develop solutions that provide the
15 best benefit to fish with the best use of the State's tax dollars. The selection of a culvert design
16 (e.g., hydraulic, no-slope, stream simulation) largely depends on stream specific conditions
17 such as width and gradient. Additional considerations include, but are not limited to: roadway
18 design and safety requirements of the transportation project; above and below ground utilities
19 in the area; constructability issues with technique and equipment; permitting requirements
20 from local, state, and federal agencies; local regulations; operational maintenance concerns;
21 tribal input on the stream and fish resources; cost for the replacement structure; right of way
22 boundaries; and effects to aquatic resources and associated mitigation.

23 WSDOT appreciates the benefits of using the stream simulation approach and now uses
24 it very frequently. This construction season, the State performed eleven corrections, 10 of
25 which were stream simulation designed corrections (the eleventh involved a road abandonment
26 where WSDOT removed the culvert). But because of the complexities surrounding site

1 conditions that WSDOT encounters it is important that it retain multiple design choices,
2 including retrofitting, for corrections.

3 **e. WSDOT's three-pronged approach to correcting barriers**

4 WSDOT has three parallel approaches to correcting barriers. First, through its Fish
5 Passage Retrofit Program, WSDOT corrects barriers as stand-alone projects. At the same time,
6 blocking culverts affected by a highway improvement project (e.g., the widening of a road to
7 increase safety and/or mobility), are corrected during construction of the project. And thirdly,
8 once a culvert reaches the end of its useful hydrologic life, if it is a barrier to fish passage,
9 WSDOT will make it passable as it also corrects the hydraulic issue. To date, using this three-
10 pronged approach, WSDOT has corrected 225 barrier sites and opened up an estimated 699
11 miles of potential linear habitat.

12 *I-4 Fish Passage Retrofit Program*

13 WSDOT's program for identifying and correcting fish passage barriers began in 1991,
14 when the Washington State Legislature directed it to correct six known fish barriers during the
15 1991-1993 biennium. With the creation of this program, for the first time, WSDOT developed
16 projects whose sole objective was to address environmental needs. During the two years of
17 that first biennium, \$105,000 and \$280,000, respectively, were allocated for inventory and
18 correction of fish passage barriers. In 1993, these "stand-alone" or "dedicated" fish passage
19 projects became a formal program -- now referred to as the Environmental Retrofit Program,
20 or "I-4" Program -- that receives funding separate from highway improvement projects.
21 Today, the I-4 Program has expanded to include stormwater treatment, stream habitat
22 improvement, highway noise attenuation, and wildlife habitat connectivity, in addition to fish
23 passage. With this "stand-alone" fish passage correction program, WSDOT was the first
24 among transportation agencies in North America to define transportation projects based on an
25 environmental need. Oregon has since implemented a fish passage program modeled after
26 WSDOT's, but otherwise it remains a unique approach.

1 WSDOT has completed 72 I-4 projects with an estimated gain of potential linear
 2 habitat of nearly 409 linear miles.³¹ In addition to its leadership correcting its barriers,
 3 WSDOT has spent almost \$4 million on research concerning the impacts of transportation
 4 infrastructure on fish and fish habitat.

5 The WSDOT's barrier correction program is statewide. Because the habitat is
 6 generally of greater magnitude in Western Washington due to its proximity to the marine
 7 waters, the Priority Index numbers for culverts within the Case Area are generally higher than
 8 those on the east side of the state. Largely for this reason, approximately 75% of the I-4
 9 corrections have been completed and 66% of the funding has been spent within the Case Area.
 10 Yet 50% of the remaining barrier culverts are outside of the Case Area.

11 *Highway Improvement Project Corrections*

12 Before 1991, WSDOT corrected fish passage barriers as they were encountered in
 13 highway safety and mobility projects, or when a culvert required work due to structural
 14 problems. This approach remains that used by almost every other state in the country.

15 In December 1990, WSDOT and WDFW entered into an agreement that created a
 16 formal process for working together to implement state laws for the protection of fish,
 17 including fish passage. This memorandum of agreement (MOA) has been updated several
 18 times and the current version was executed in 2008.³² Under the terms of this agreement, the
 19 WSDOT has performed approximately 143 corrections during the course of highway
 20 improvement projects (it had performed 10 corrections prior to 1991). Because these corrected
 21 barriers can have lower PIs, the amount of potential linear habitat opened – 290 linear miles –
 22 is much less than that opened through the I-4 corrections discussed above. For examples of
 23

24 ³¹ These stand alone retrofit projects focus on culverts with the highest PI numbers, so the average
 25 potential habitat gain for these projects is significantly higher than would be the potential habitat gained by
 26 correction of barrier culverts with lower PI numbers.

³² For a detailed discussion of the history and requirements of the memorandum of agreement see Hanson
 Decl., ¶¶ 8-13.

1 projects corrected during the course of highway improvements projects, *see* Hanson Decl.,
 2 paragraphs 19-45.

3 **f. Monitoring**

4 All fish passage construction corrections undertaken by WSDOT undergo monitoring
 5 to various degrees. Each project, regardless of PI or funding source, is inspected by WDFW
 6 immediately upon completion in order to verify that it was built as permitted and designed.
 7 WDFW conducts similar inspections for fish passage projects on its own lands.

8 Because the I-4 culvert projects are generally the most critical, they undergo more
 9 extensive monitoring. Beyond the initial inspection, WDFW checks the culvert again after
 10 passage of the first winter storm season to verify that it remains fish passable. WDFW also
 11 conducts fish spawner surveys prior to construction and one year after completion of the
 12 project to verify that adult salmon are indeed getting through the new structure and spawning
 13 upstream.³³

14 Additionally, WDFW has four test sites where it conducts ongoing monitoring through
 15 annual spawner surveys in order to evaluate the various fish passage design methods:

- 16 1. Unnamed tributary to South Branch Big Creek (US 101, mile post 101.1 near
 17 Humptulips), to represent a hydraulic design option;
- 18 2. Moose Creek, tributary to the North Fork Stillaguamish River (SR 530, mile post 44.0
 19 west of Darrington), to represent a no slope design option;
- 20 3. Fairchild Creek, tributary to Big Creek (US 101, mile post 105.6 near Humptulips), to
 21 represent a fishway retrofit design option; and
- 22 4. Dogfish Creek, tributary to Liberty Bay (SR 307, mile post 0.07 near Poulsbo), to
 23 represent a stream simulation design option.

24 The results of the annual surveys indicate that each of these projects continue to be fish
 25 passable.

26 ³³ WDFW does not check to see whether fish production actually increases after the culvert is fixed. The
 number of additional fish that may be produced from fixing a single culvert would not be detectable given the
 natural variability in run sizes due to ocean survival and other factors.

1 **5. Estimated Cost of Correcting WSDOT Barrier Culverts**³⁴

2 For several reasons, costs of correcting barriers have drastically increased since
3 WSDOT performed its first stand-alone corrections in the early 1990s. Those corrections were
4 fishways, which were retrofits of existing culverts most of which did not entail the large costs
5 of a “cut-and-cover” replacement such as traffic control and excavation required for today’s
6 stream simulation culverts. In addition, the costs of corrections have increased steadily over
7 time with escalating materials costs. Finally, to get the most from its limited resources, the
8 WSDOT has corrected the low-hanging-fruit first. That is, it is has corrected those which both
9 have less cost and more gain first.

10 The cost of correcting the remaining barriers in 20 years may well approach \$2 billion
11 or \$200 million per biennium. The WSDOT has scoped 38 projects and arrived at initial
12 estimates of costs for these projects. On average, WSDOT anticipates the cost of performing
13 these projects will be approximately \$3 million per correction or \$2.3 million per correction
14 after removing the highest cost project (Chico Creek – \$29 million). Applying these averages
15 to the remaining 788 barriers currently identified as blocking more than 200m of potential
16 linear habitat (PLH) results in costs between \$1.8 billion and \$2.3 billion.

17 **E. The State Continues to Make Progress Despite Budget Constraints**

18 **1. Washington’s state budget has decreased along with the rest of the State’s**
19 **and the nation’s economy.**³⁵

20 The State of Washington, like the entire country, is mired in a deep recession. Based
21 upon the March 19, 2009 forecast, the State is facing an approximate \$9 billion deficit for the
22 operating budget for FY 09-11. The lowering of the state general fund (GF-S) revenue forecast
23 was unprecedented -- an almost 60 percent increase in the projected deficit in only one

24

25 ³⁴ By order dated 10/8/09, the court excluded the Testimony of David Smelser, WSDOT’s lead cost
26 estimator and expert witness who would have provided an estimate reflecting what WSDOT believes the cost of
 correcting WSDOT’s culverts with greater than 200m of potential linear habitat in 20-years. This evidence is
 grounded in historical data and would be directly responsive to the Tribes’ offer of historical data at trial.

³⁵ See Declaration of Victor Moore for discussion of the state economy.

1 forecast period. According to Victor Moore, Director of the state's Office of Financial
 2 Management (OFM), this is the largest one period drop in revenue since the State started doing
 3 formal revenue forecasts. Put in perspective, eliminating every discretionary dollar currently
 4 invested in higher education and children's health care services would not save enough to
 5 cover the current operating shortfall.

6 To deal with these declining revenues, the State's options are limited. On December 20,
 7 2008 the Governor was required to propose a version of the operating budget *balanced* to the
 8 November General Fund-State (GF-S) revenue forecast. The State also faces two legal
 9 restrictions on spending, Initiative 601 (I-601) and the constitutional debt service limit. I-601
 10 placed a limit on the growth of general fund expenditures in the operating budget which,
 11 historically, has amounted to an approximate limit of 5 percent allowable growth in spending.
 12 The state constitution restricts debt service from exceeding 9 percent of general state revenues.
 13 As of January 22, 2009, the State's debt service as a percentage of general state revenue was at
 14 7.1 percent. The bond model used by OFM, the State Treasurer, and the legislature projects
 15 the percentage of debt service will rise to 8.5 percent over the next two biennia.

16 In order to meet the budget shortfall, the Governor has been required to make very
 17 difficult decisions in prioritizing the limited discretionary funds available in what is now the
 18 current biennium. In the operating budget, significant cuts to higher education are being made
 19 across the board. Some of the most vulnerable citizens of our State are falling victim to the
 20 budget axe. For example, monthly grants to 21,000 individuals in the General Assistance-
 21 Unemployable would be eliminated and financial support for an additional 6,500 clients in the
 22 Alcoholism and Drug Addiction Treatment Support Program would be ended. The Governor's
 23 proposed operating budget would also require a 13 percent across the board reduction for
 24 research and regional universities and a 6 percent reduction for community colleges.³⁶

25 ³⁶ At the time OFM Director Victor Moore signed his declaration, the Legislature has yet to pass the 09-
 26 11 budget. At trial, Mr. Moore can provide current information regarding cut programs and the more recent
 revenue numbers.

1 In broad terms, 58 percent is “off-limits” as it is required to meet the constitutional and
 2 statutory mandates for funding basic education, medical assistance, and other obligations,
 3 which include debt service and pension payments. For the reasons discussed above, the
 4 remaining 42 percent of the operating budget is insufficient to pay for all of the requests made
 5 by State agencies and other stakeholders, such as funding higher education; children’s services
 6 including child protective services; foster care and juvenile rehabilitation; mental health
 7 services including two state mental health institutions; services to the most vulnerable
 8 including the elderly and persons with developmental disabilities; and operating the State’s
 9 correctional system.

10 **2. WSDOT’s Budget is Limited Not Only by the Economic Downturn But by**
 11 **Legislative Mandates**

12 The population of the State is 6.4 million and growing. There are 4.8 million licensed
 13 drivers in Washington driving 56 billion vehicle miles every year on the State’s roads. The
 14 State’s ferry system carried 23.3 million passengers last year and another 630,000 Amtrak
 15 passengers rode the State’s rail system. The demands on the State’s transportation system are
 16 expected to increase in the future. The challenge will be to maintain the transportation
 17 infrastructure we currently have, to expand capacity to accommodate growth and ensure
 18 mobility, to ensure the safety of the travelling public, and to reduce the impact of the system on
 19 the environment.

20 The State’s aging highway infrastructure and limitations on mobility will require
 21 billions of dollars in future funding. For example, there are a number of mega-projects on the
 22 horizon such as the Alaskan Way Viaduct, SR 520, North Spokane Corridor, and a new
 23 Columbia River Crossing. These projects will certainly run into the multiple billions of
 24 dollars. The plan for the State’s rail system will require an additional \$141 – \$828 million over
 25 the next 8 years. The ferry system is currently working on long-range plans with varying
 26 levels of service and a variety of alternatives for maintaining and modernizing the fleet.

1 Regardless of the plan that is adopted, the ferry system is projected to be operating at a deficit
2 into the foreseeable future.

3 WSDOT's budget currently is experiencing significant shortfalls in available funds, as
4 are other government functions. The revenue dedicated to transportation needs that is
5 generated from State sources (primarily the State gas tax and various licensing fees) for FY
6 2009-2011 is currently projected to be \$965 million less than what is necessary to fund the
7 anticipated obligations of WSDOT. The severe revenue shortfall will compel the legislature
8 and WSDOT to make significant cuts to a wide variety of programs. The Governor has
9 proposed \$17.9 million for fish passage barrier culvert remediation in the FY 09-11 budget.
10 This constitutes an increase for that budget at a time when many other programs are being
11 reduced or eliminated.

12 Of the \$5.71 billion within WSDOT's budget from state and federal sources, less than
13 11% (~\$600 million) is not dedicated to a specific project or program. Although these funds
14 are not mandated for specific projects, WSDOT is required to spend the funds in accordance
15 with legislative priorities for the broader mission of WSDOT. They are spent maintaining the
16 condition of the pavement for 20,250 lane miles³⁷ of roadway; ensuring safety and preservation
17 of 3,600 bridges and elevated structures on the state system; maintaining the facilities of the
18 existing infrastructure; snow and ice removal; paying for the electrical system to light the
19 roadways at night and to operate traffic control devices; environmental retrofit (including
20 stand-alone barrier corrections); congestion relief; and unanticipated emergencies.

21 The prioritization of the non-dedicated funds is a zero-sum budget exercise. That is, if
22 funding is used for a particular purpose, that necessarily means that other needs will have less
23 funding or may have to be eliminated. Currently many critical statewide transportation
24 activities are significantly underfunded or have been postponed. For example, there are

25 ³⁷ In contrast to "centerline" miles, which are 7053, the "lane" miles count number of lanes excluding
26 ramps, special use lanes, bike lanes, separated HOV lanes, etc. A one-mile length of four lane highway on I-5
equals four lane miles.

1 numerous major maintenance projects that are being deferred due to lack of available funds
2 such as a growing list of steel bridge painting (currently 55 bridges - \$170 million), aging
3 pavements not being addressed (currently 550 lane miles - projected to be over 1,500 by the
4 end of 2011), bridge deck rehabilitations (60 bridge decks - \$70 million), and bridge deck
5 replacements (35 bridges - \$547 million). There is currently an additional \$85 million backlog
6 of other maintenance projects.

7 Important safety projects are also being deferred due to lack of funding. For example,
8 SR 101 near Shelton needs additional rumble strips and SR 195 near Cheney has a potentially
9 dangerous at-grade intersection. SR 9, SR 291, and SR 302 also have pressing safety projects
10 for which there is no available funding.

11 During the last five years inflation for transportation related construction increased by
12 60%. This rate of inflation results in a significant reduction in the purchasing power of
13 transportation funds. Since the gas tax is not indexed to inflation, WSDOT's gas tax revenues
14 are in a constant state of decline compared to WSDOT's costs. Also, as vehicles are required
15 to become more fuel efficient and more people start to use transit, both good environmental
16 goals, less fuel tax revenue is generated. During the past year, both the federal and state
17 governments reduced their budget appropriations for transportation agencies in order to align
18 with these reduced revenues.

19 In the absence of increased or new sources of revenue, any increase in funding for
20 culvert remediation would have to come out of the budget of other projects and activities.
21 Within the transportation budget, rearranging the priorities negotiated during the legislative
22 process would quickly unravel the basis for negotiated agreements. Any significant funding
23 increases for culvert remediation could be taken from other environmental projects and thereby
24 be self defeating in the larger efforts to protect and restore salmon. Increasing the funding for
25 correction of fish passage barriers, at the expense of other areas of the transportation budget,
26 will lead to compromises of safety or mobility for millions of drivers. Looking outside the

1 transportation budget, the largest source of money in the operating budget would mean taking
2 funding away from health care, children's services, or higher education.

3 III. PRIOR PROCEEDINGS

4 This lawsuit, pending since 1970, is about the "right of taking fish" secured in six
5 treaties³⁸ to Indian Tribes whose "usual and accustomed grounds and stations" are in Western
6 Washington.³⁹ *United States v. Washington* was the culmination of decades of conflict about
7 whether and to what extent the treaties preempt state regulation of fishing by treaty Indians.⁴⁰
8 Before trial, the Court separated the claims into two parts: (I) the extent to which the treaties
9 preempt state regulation of Indian fishing and entitle the Tribes to a share of fish, and
10 (II) whether the treaties require the State to refrain from and prevent degradation of fish
11 habitat. The first part ("Phase I") went to trial in 1973. The Court reserved for later
12 determination in "Phase II" the "[e]nvironmental issues requiring affirmative relief."⁴¹

13 A. Phase I: A Treaty Right to a Fair Share of Harvestable Fish

14 Phase I produced the "Boldt decision," *United States v. Washington*, 384 F. Supp. 312
15 (W.D. Wash. 1974), *aff'd*, 520 F.2d 676 (9th Cir. 1975), *cert. denied*, 423 U.S. 1086 (1976).
16 The Court held (1) state fishing regulations that are not necessary for conservation conflict
17
18

19 ³⁸ The treaty provision in question, as set forth in the Medicine Creek Treaty, says "The right of taking
20 fish, at all usual and accustomed grounds and stations, is further secured to said Indians, in common with all
21 citizens of the Territory" Treaty With Nisquallys (Medicine Creek Treaty), Art. III, 10 Stat. 1132, 1133
22 (Dec. 26, 1854). The other treaties involved in *United States v. Washington* contain a substantially similar
23 provision. Treaty With the Dwámish Indians (Treaty of Point Elliott), Art. V, 12 Stat. 927, 928 (Jan. 22, 1855);
24 Treaty With the S'Klallams (Treaty of Point No Point), Art. IV, 12 Stat. 933, 934 (Jan. 26, 1855); Treaty With the
25 Makah Tribe, Art. IV, 12 Stat. 939, 940 (Jan. 31, 1855); Treaty With the Yakamas, Art. III ¶ 2, 12 Stat. 951, 953
26 (June 9, 1855); Treaty With the Qui-Nai-Elts, Art. III, 12 Stat. 971, 972 (July 1, 1855).

³⁹ The *United States v. Washington* "case area" includes Washington watersheds that drain into Puget
Sound, Grays Harbor, and the Pacific Ocean north of Grays Harbor. *United States v. Washington*, 384 F. Supp.
312, 328 (W.D. Wash. 1974); *United States v. Washington*, 459 F. Supp. 1020, 1097 (W.D. Wash. 1977).

⁴⁰ See *Who's In Charge of Fishing?*, 106 OREGON HISTORICAL QUARTERLY 412 (Fall 2005),
<http://www.historycooperative.org/journals/ohq/106.3/>.

⁴¹ Final Pretrial Order § 12-3 (Doc. No. 353); see *U.S. v. Washington*, 384 F. Supp. at 328.

1 with the treaties and are therefore preempted and unenforceable against treaty Indians,⁴² and
 2 (2) the treaty right being “in common with” other people, the Tribes are entitled to a fair and
 3 equitable share of harvestable fish. State fishing regulations that fail to provide the Tribes with
 4 a fair share conflict with the treaties and are preempted.⁴³ Ultimately, the United States
 5 Supreme Court affirmed these legal principles in *Washington v. Washington State Commercial*
 6 *Passenger Fishing Vessel Association*, 443 U.S. 658, 674-85 (1979).

7 The Boldt decision was very controversial, but most of the controversy had to do with
 8 the remedy, not the law. In devising an equitable remedy to implement the Tribes’ right to a
 9 fair share of harvestable fish, the Court set the tribal share at 50%, in part because of the
 10 Tribes’ historic dependence on fishing for food and commerce.⁴⁴ That meant non-Indian
 11 fisheries had to be severely curtailed, resulting in several years of turmoil. The Supreme Court
 12 generally affirmed the 50% remedy but was sensitive to the concerns of non-Indians, making
 13 some adjustments in the sharing formula and leaving the door open for future adjustments.⁴⁵ In
 14 particular, the Court said the State may seek a sharing adjustment if a Tribe turns to “other
 15 sources of support” and does not need 50% for a “livelihood” or “moderate living.”⁴⁶

16 **B. Phase II: The Rise and Fall of a Treaty-Based Habitat Servitude**

17 In 1976, the United States and the Plaintiff Tribes activated “Phase II” of *United States*
 18 *v. Washington*. They alleged that the State had a treaty-based duty to avoid taking or
 19 authorizing actions that “significantly and adversely affect fish habitat and which directly or
 20 indirectly reduce the number or quality of fish available to treaty Indians.”⁴⁷ The Plaintiffs
 21

22 ⁴² *United States v. Washington*, 520 F.2d 676, 684-86 (9th Cir. 1975), *cert. denied*, 423 U.S. 1086 (1976).
 Among other things, the court enjoined enforcement of certain fishing gear laws. 384 F. Supp. at 415.

23 ⁴³ *U.S. v. Washington*, 520 F.2d at 687-88; *see Sohappy v. Smith*, 529 F.2d 570 (9th Cir. 1976).

24 ⁴⁴ *U.S. v. Washington*, 384 F. Supp. at 343-44, 416-17, *aff’d*, 520 F.2d at 687-90.

25 ⁴⁵ *Fishing Vessel*, 443 U.S. at 685-89.

26 ⁴⁶ *Fishing Vessel*, 443 U.S. at 686-87; *see* Fed. R. Civ. P. 60(b)(5).

⁴⁷ Doc. No. 2352 at 5, Doc. No. 2490 at 5, Doc. No. 2623 at 6, 7.

1 moved for summary judgment on that question, urging that “the treaties, in a sense, impose an
2 ‘easement’ on all waterways used by salmon and steelhead in their migrations.”⁴⁸

3 In 1980, the Court granted the motion and held that the treaties implicitly imposed on
4 the State a duty not to impair fish habitat.⁴⁹ Misreading the remedy section of the Supreme
5 Court’s *Fishing Vessel* opinion as a declaration of law, the Court concluded that the “treaties
6 reserve to the tribes a sufficient quantity of fish to satisfy their moderate living needs.”⁵⁰
7 Therefore, said the Court, the “duty imposed upon the State (as well as the United States and
8 third parties) is to refrain from degrading the fish habitat to an extent that would deprive the
9 tribes of their moderate living needs.”⁵¹ Though Judge Orrick did not use the word
10 “servitude,” commentators and courts have recognized that his ruling effectively declared an
11 environmental servitude encumbering the lands that the Tribes ceded in the treaties.⁵²

12 The State appealed. The case was first heard by a three-judge panel of the Ninth
13 Circuit, which rejected the trial court’s reasoning.⁵³ The panel repeatedly emphasized that the
14 trial court had misread *Fishing Vessel*, and that an environmental servitude had no basis in
15 precedent.⁵⁴ Instead, the panel held that the treaties impose on the State, the United States, and
16 the Tribes an obligation to take “reasonable steps” to preserve and enhance the fishery when
17
18

19 ⁴⁸ Doc. No. 5542 at 15.

20 ⁴⁹ *United States v. Washington*, 506 F. Supp. 187, 205-07 (W.D. Wash. 1980); *see id.* at 203.

21 ⁵⁰ *U.S. v. Washington*, 506 F. Supp. at 208; *see id.* at 193.

22 ⁵¹ *U.S. v. Washington*, 506 F. Supp. at 208; Am. J. (Jan. 12, 1981) (Doc. No.7390).

23 ⁵² Mary Christina Wood, *The Tribal Property Right to Wildlife Capital (Part II): Asserting a Sovereign*
24 *Servitude to Protect Habitat of Imperiled Species*, 25 VT. L. REV. 355, 363 (2001); Gary D. Meyers, *United States*
25 *v. Washington (Phase II) Revisited: Establishing an Environmental Servitude Protecting Treaty Fishing Rights*,
26 67 Or. L. Rev. 771, 778 (1988); *see Skokomish Indian Tribe v. United States*, 410 F.3d 506, 527 (9th Cir. 2005)
(en banc) (Berzon, J., dissenting), *cert. denied*, 126 S. Ct. 1025 (2006); *United States v. Washington*, 694 F.2d
1374, 1381, 1384, 1389 (9th Cir. 1982), *vacated*, 759 F.2d 1353 (9th Cir. 1985) (en banc).

⁵³ *United States v. Washington*, 694 F.2d 1374, 1377 (9th Cir. 1982).

⁵⁴ *Id.* at 1375, 1377 & n.7, 1380-82, 1387.

1 their projects threaten then-existing harvest levels.⁵⁵ The panel did not suggest that the Tribes
2 are entitled to any particular quantity of fish.

3 The United States and the Tribes were granted rehearing *en banc*. First, the *en banc*
4 court concluded that it lacked jurisdiction over the environmental issue and dismissed the
5 appeal. Then the State sought rehearing. Finally, a divided eleven-member court issued an
6 opinion vacating the trial court's judgment of an environmental servitude as contrary to the
7 exercise of sound judicial discretion because it was decided without a factual context:

8 The legal standards that will govern the State's precise obligations and duties
9 under the treaty with respect to the myriad State actions that may affect the
10 environment of the treaty area will depend for their definition and articulation
upon concrete facts which underlie a dispute in a particular case.⁵⁶

11 **C. The Culverts Subproceeding**

12 In January 2001, the Plaintiffs used the State's 1997 progress report on state highway
13 culverts as a source of "concrete facts" for bringing the Phase II environmental servitude issue
14 back to court.⁵⁷ In August 2006, the State and the Tribes filed cross-motions for summary
judgment.⁵⁸ In August 2007, the Court granted the Tribes' motion, ruling as follows:

15 [T]his Court finds that the Treaties do impose a duty upon the State to refrain
16 from building or maintaining culverts in such a manner as to block the passage
17 of fish upstream or down, to or from the Tribes' usual and accustomed fishing
18 places. This is not a broad "environmental servitude" or the imposition of an
19 affirmative duty to take all possible steps to protect fish runs as the State
protests, but rather a narrow directive to refrain from impeding fish runs in one
specific manner. The Tribes have presented sufficient facts regarding the
number of blocked culverts to justify a declaratory judgment regarding the
State's duty to refrain from such activity. . . .

20 . . . The Court hereby declares that the right of taking fish, secured to the Tribes
21 in the Stevens Treaties, imposes a duty upon the State to refrain from building
22 or operating culverts under State-maintained roads that hinder fish passage and
thereby diminish the number of fish that would otherwise be available for Tribal

23 ⁵⁵ *Id.* at 1374, 1375 & n.1, 1381, 1386, 1389-90 & n.1.

24 ⁵⁶ *United States v. Washington*, 759 F.2d 1353, 1357 (9th Cir. 1985) (*en banc*).

25 ⁵⁷ Tribes' RFD ¶¶ 3.6, 3.7; U.S. Resp. to RFD ¶ 3.6.

26 ⁵⁸ Washington's Mot. for Summ. J. & Argument in Supp. (Doc. No. 18552/287); Pl. Tribes' Mot. &
Mem. in Supp. of Mot. for Partial Summ. J. (Doc. No. 18560/295).

1 harvest. The Court further declares that the State of Washington currently owns
2 and operates culverts that violate this duty.

3 Order on Cross-Motions for Summary Judgment at 12 (Doc. No. 18875/388).⁵⁹ Though noting
4 the need for further proceedings to determine an appropriate remedy, *Id.*, the Court did not
5 suggest that any injunction is necessary.

6 IV. ISSUES

- 7 1. Whether the Court should enter a permanent injunction requiring an increase in state
8 barrier correction funding when the State initiated salmon recovery efforts and a state
9 barrier correction program long before the filing of this case, currently partners with
10 other local and tribal entities to address salmon recovery, has spent hundreds of
11 millions of dollars to date on salmon recovery and any benefit to tribal harvest cannot
12 be reasonably predicted?
- 13 2. Whether the Court should mandate that the State may only use bridges or stream
14 simulation design methods when both the no-slope and hydraulic design methods also
15 meet the existing fish passage criteria and present alternatives that may be used to deal
16 with site conditions and/or present substantial cost savings?

17 V. DISCUSSION OF REQUESTED REMEDY

18 There is no emergency here that can be solved by correcting only state-owned barrier
19 culverts in 20 years. The State is currently taking aggressive measures, both financial and
20 otherwise, to ensure salmon recovery. Implementing the requested remedy would needlessly
21 insert the federal court into a holistic approach that has been crafted through decades of work
22 and refinement by all stakeholders including the Tribes. The Tribes ignore the fact that state-
23 owned barrier culverts make up only a small portion of the thousands of known barrier culverts
24 and the estimated thousands of unknown barrier culverts statewide and that barrier culverts are
25 only one of many factors affecting salmon health.

26 The primacy for barrier culverts sought by the Tribes undermines comprehensive plans
already in place. Additionally, the Tribes have produced no evidence that the disproportionate
emphasis on repairing barriers will produce significant increases in the available harvest. The

⁵⁹ Law review commentary about the Court's decision has already begun. William Fisher, Note, *The Culverts Opinion and the Need for a Broader Property-Based Construct*, 23 J. Envtl. L & Litig. 491 (2008).

only certainty is that the reallocation of funding sought by the Tribes will result in reductions for other public programs, likely including some related to salmon recovery.

A. The State's Existing Program is Reasonable in Light of the State's Holistic Approach to Salmon Recovery and Available Funding

The Tribes cannot establish the factors necessary for a permanent injunction as applied to the State's correction rate. They cannot show an irreparable injury on a more probable than not basis; any conclusion that the Tribes would experience a significant increase in their harvest due to the removal of only the remaining state owned barriers in the Case Area is speculative. The hardship to the state of implementing the requested remedy in the requested timeframe outweighs any speculative evidence of a harvest increase. The estimated cost of the remedy, ~\$180 million per biennium, would require finding another \$165 million in new funding for the I-4 program per biennium. In the absence of a new funding source, that money will have to come from other programs that are either critical to WSDOT's mission, further fish recovery, or promote the public welfare. And the Court should give strong weight to the public interest of allowing the State the discretion to deal with its limited resources, especially in the current economic climate.

1. The Tribes Cannot Show That Without the Injunction Their Harvest Levels Will be Significantly Lower

In a recent decision, this Court noted that it is difficult, if not impossible, to tell "which raindrop caused the flood." *Preserve Our Island v. U.S. Army Corps of Engineers*, 2009 WL 2511953 (W.D.Wash. 2009).⁶⁰ Yet here, the Tribes would have the Court conclude that it was the State's barrier culverts, and only the State's, that created the flood. Following this flawed logic to the next step, the Tribes conclude that by correcting the State barrier culverts, and only

⁶⁰ In the context of that NEPA case where the requested remedy was merely a more thorough analysis of alternatives to building a dock, this court went on to note that "every project has the potential to incrementally increase the burden upon the species and the Sound" and ordered that the Corps perform a full EIS to determine how the requested project fits within the cumulative impacts of development on fish habitat. The State agrees with the court's conclusion that many types of development arising from population pressures can have impacts on salmon. It merely urges the court not to unnecessarily focus on only a single contributing factor – state-owned barrier culverts – to try to correct the problem.

1 the State barrier culverts, the flood will recede. Because they cannot show that by correcting
 2 only State culverts within their requested timeline will result in a significant increase in their
 3 harvests, the Tribes cannot establish irreparable injury necessary for a permanent injunction.

4 The issues related to salmon recovery are numerous, and only some can be
 5 meaningfully influenced by human intervention. For those, the State is taking a holistic
 6 approach, investing human capital and hundreds of millions of dollars in hatchery reform,
 7 harvest reform, hydropower issues and habitat restoration. As Dr. Jeffrey Koenings, the
 8 former Director of WDFW, stated in his declaration:

9 [I]t would be a mistake to focus narrowly on only one factor affecting salmon,
 10 such as state-owned fish-blocking culverts. If juvenile salmon cannot find
 11 functional shelter in the estuary as they adapt to salt water, they die—as was
 12 determined for the Skagit River. If they cannot find cool, unpolluted freshwater
 13 for migration and spawning, they die—as was determined for the Fraser River.
 14 If adult salmon are caught in excessive rates, the stock will not recover—as was
 15 determined for the Nooksack spring Chinook. If hatchery-origin salmon spawn
 16 at excessive rates with wild fish, the stocks suffer genetic harm. Fixing state-
 17 owned culverts alone will do little to solve these other, very real, bottlenecks to
 18 recovery.

19 Koenings Decl., ¶51. Without the injunction, the State will continue to invest tremendous
 20 resources in all four “Hs” which contribute to salmon recovery as well as its barrier culverts.

21 A comparison of the age of most WSDOT culverts and the tribal harvest levels between
 22 1974 and present supports Dr. Koenings’ conclusion that it would be a mistake to focus on
 23 culverts alone. The vast majority of the State’s highway system and the associated culverts
 24 were installed before 1970, the year the Tribes initiated *U.S. v. Washington*. The Tribes
 25 contend that after the 1974 decision, and well after the vast majority of the existing highway
 26 system was in place, they realized substantial gains in their harvest levels. These numbers
 show no direct correlation between WSDOT’s barrier culvert ownership and the tribal harvest.

Further, due to the ubiquitous nature of thousands of other privately-owned barriers
 throughout the state, the immediate correction of the State’s barrier culverts would not free
 most of the currently blocked habitat.

2. The State's Hardship: Lack of Funding in Troubled Times

The balance of hardships analysis with regard to the requested remedy should be a balancing of the Tribes' speculative estimates of its alleged lost harvest due only to the presence of state barrier culverts and the burden on the State of paying for the requested remedy in 20 years. Because the Tribes are requesting institutional reform of the State's salmon recovery program, this analysis should be viewed through a federalism-tinted lens:

Federalism concerns are heightened when, as in [institutional reform] cases, a federal court decree has the effect of dictating state or local budget priorities. States and local governments have limited funds. When a federal court orders that money be appropriated for one program, the effect is often to take funds away from other important programs.

Horne, 129 S. Ct. at 2594.

Federalism concerns are generally expressed in terms of 1) comity and 2) institutional competence. *Stone v. City and County of San Francisco*, 968 F.2d 850, 860 (9th Cir. 1992). The comity interest instructs federal courts to fashion a narrowly tailored remedy, so as to not unduly interfere with State authority or function. *Id.* at 861; *see also Rizzo v. Goode*, 423 U.S. 362, 379 (1976) (federal courts "should always seek to minimize interference with legitimate state activities in tailoring remedies."). Decrees with long lives trigger the comity interest because they can "improperly deprive future officials of their designated legislative and executive powers." *Horne*, 129 S. Ct. at 2594, *citing Frew v. Hawkins*, 540 U.S. 431, 441 (2004).

In other institutional reform cases, deference to state officials with regard to how best to comply with federal law is of substantial importance. *Stone* ("Prison administrators therefore should be accorded wide-ranging deference in the adoption and execution of policies and practices that in their judgment are needed to preserve internal order and discipline and to maintain institutional security."); *Missouri v. Jenkins (Jenkins III)*, 515 U.S. 70, 131-32 (1995) (J. Thomas, concurring) ("Federal courts do not possess the capabilities of state and local governments in addressing difficult [educational] problems. State and local [school board]

1 officials not only bear the responsibility for educational decisions, they are also better equipped
 2 than a single judge to make the day-to-day policy, curricular, and funding choices necessary to
 3 bring a school district into compliance with the Constitution.”); *see also Rizzo* (when crafting a
 4 remedy the court must consider the “well-established rule that the Government has
 5 traditionally been granted the widest latitude in the ‘dispatch of its own internal affairs.’”).

6 In the context of land management decisions, the Supreme Court has similarly
 7 concluded that the APA does not provide courts with the ability to craft an injunction which
 8 would “inject[] the judge into the day-to-day agency management.” *Norton v. Southern Utah*
 9 *Wilderness Alliance (SUWA)*, 542 U.S. 55, 66 (2004). In *SUWA*, the environmental group sued
 10 the Department of Interior over its refusal to exclude off-road vehicles from areas designated
 11 as “wilderness-study areas” under the Federal Land Policy and Management Act. In reversing
 12 the Tenth Circuit’s decision, the Supreme Court commented that the principle purpose of the
 13 APA and common law limitations on its predecessor, the writ of mandamus, was to “protect
 14 agencies from undue judicial interference with their lawful discretion, and to avoid judicial
 15 entanglement in abstract policy disagreements which courts lack both expertise and
 16 information to resolve.” *Id.* at 66.

17 Similarly, the Supreme Court has abstained from enjoining the discretionary authority
 18 of federal officials to bring enforcement actions when faced with limited funding. *Heckler v.*
 19 *Chaney*, 470 U.S. 821, 831-32, 105 S.Ct. 1649 (1985). In *Heckler*, prison inmates brought an
 20 action to compel the Food and Drug Administration to take enforcement action. In abstaining
 21 from requiring that agency to do so, the Supreme Court noted that Department of Health and
 22 Human Services officials were in the best position to determine how best to use limited
 23 resources:

24 The reasons for this general unsuitability are many. First, an agency decision
 25 not to enforce often involves a complicated balancing of a number of factors
 26 which are peculiarly within its expertise. Thus, the agency must not only assess
 whether a violation has occurred, but *whether agency resources are best spent*
on this violation or another, whether the agency is likely to succeed if it acts,

1 *whether the particular enforcement action requested best fits the agency's*
 2 *overall policies, and, indeed, whether the agency has enough resources to*
 3 *undertake the action at all.* An agency generally cannot act against each
 4 technical violation of the statute it is charged with enforcing. The agency is far
 5 better equipped than the courts to deal with the many variables involved in the
 6 proper ordering of its priorities.

7 *Heckler v. Chaney*, 470 U.S. 821, 831-832 (1985) (emphasis added).

8 As with prison management, education, and land management, salmon recovery is a
 9 complex field best left to the officials who have devoted their lives deciding how best to make
 10 use of limited resources. Through Pacific Salmon Treaty negotiations and the North of
 11 Falcon⁶¹ process, the State makes decisions every year about how best to address harvest
 12 issues. In the area of hatchery reform, the State devotes substantial resources and implements
 13 them to best address the delicate relationship between wild and hatchery salmon. The State is
 14 a partner on numerous hydropower projects ensuring that fish passage is made available and it
 15 is one of the lead funding sources for habitat restoration projects across the state through the
 16 Salmon Recovery Fund. Finally, the state spends considerable resources correcting its own
 17 barriers to ensure that it is addressing habitat connectivity issues in a timely manner. The
 18 Court is not well-positioned to make the determination that barrier culverts deserve a greater
 19 proportion of the State's limited resources.

20 In addition to providing deference to the State's sophisticated approach to salmon
 21 recovery, the Court should not ignore the potential large impact on the State treasury of the
 22 requested remedy. In *Cobell v. Norton*, 428 F.3d 1070 (D.C. Cir. 2005), the court reversed a
 23 \$12-13 billion court-ordered injunction which might have produced greater accuracy for the
 24 historical accounting of trust fund assets. It concluded that the district court should have taken
 25 a closer look at costs and not merely accepted what it believed was the method preferred by
 26 plaintiffs. *Id.* at 1078. The court further stated that "[b]ecause the district court's ban on
 statistical sampling reflected no deference to defendant's expertise or to their judgment

⁶¹ For more information on the North of Falcon process see WDFW's webpage at
<http://wdfw.wa.gov/fish/northfalcon/>.

1 regarding the allocation of scarce resources the district court abused its discretion....” *Id.* at
2 1078 -79.

3 The Tribes’ proposed remedy here would similarly have a tremendous impact on the
4 State treasury. It appears that the Tribes will ask the Court to order WSDOT to correct almost
5 800 barriers in 20 years.⁶² Based upon the State’s scoping information (i.e., the State’s initial
6 estimates of costs of 38 stand-alone barrier correction projects) WSDOT’s current average cost
7 for barrier correction projects using both the stream simulation design and bridges where
8 necessary is \$2.3 per project. Multiplying these numbers by 800 shows a total cost of
9 approximately \$1.84 billion. These numbers do not account for inflation.

10 The clearest way to guarantee that the State would make the 20-year deadline would be
11 to pay for all the corrections through WSDOT’s I-4 Fish Passage Barrier Retrofit program.⁶³
12 WSDOT calculates that it currently budgets approximately \$15 million each biennium in its I-4
13 program for stand-alone corrections (i.e., corrections not performed during highway
14 improvement projects). To obtain the Tribes requested pace of correction, the legislature
15 would have to increase the existing I-4 budget to between \$184-240 million per biennium,
16 greater than a 10-fold increase. As in *Cobell*, the Court should consider the requested
17 remedy’s almost \$2 billion price tag and the State’s current efforts to address salmon recovery
18 when deciding whether to approve it. The Court should also defer to the governmental
19 defendant’s proposal – an existing prioritized approach to correction which obtains the most
20 benefit for fish while still allowing for the funding of other important programs.

21
22
23
24 ⁶² It is difficult to tell the actual universe of barriers the Tribes want corrected in 20 years because they
25 ask for the “List” of barriers to be created six months after trial. However, the State’s best guess is that it is
26 around 800.

⁶³ The State recognizes that some of these barriers may be corrected during the course of highway
improvements, which could result in substantial cost saving (e.g., mobilization costs). However, to be
conservative, the State is assuming that the vast majority would have to be corrected as stand-alone projects.

1 **3. Enjoining the State Program Would be Adverse to the Public Interest**
 2 **Because it Would Result in Underfunding or Terminating Other Programs**
 3 **and Jeopardize Corrections Outside the Case Area.**

4 Because the Tribes cannot show either an emergency or that fixing only state culverts
 5 would significantly increase their harvest, the public interest of permitting the State to deal
 6 with its budget crisis in a way that benefits both salmon and the rest of the public programs
 7 outweighs any speculative injury to Tribal harvest. In *Winter*, the Supreme Court noted that,
 8 even upon a showing of irreparable injury, the public interest can still be such that, on balance,
 9 the court should not impose an injunction.⁶⁴ Reversing the Ninth Circuit’s affirmance of an
 10 injunction on the U.S. Navy’s use of sonar testing, the Court quoted the well-established rule
 11 that “in exercising their sound discretion, courts of equity should pay particular regard for the
 12 public consequences in employing the extraordinary remedy of injunction.”⁶⁵ It found that the
 13 district court failed to give appropriate weight to the testimony of experts in the Navy about the
 14 impacts that the injunction would have on their ability to effectively train.⁶⁶ And it concluded
 15 that its analysis was applicable to both permanent and preliminary injunctions.⁶⁷

16 The public interest similarly requires that the Court not enjoin the State here. State
 17 witnesses believe that unduly focusing on culverts could create “choke points” at other factors
 18 that contribute to salmon health.⁶⁸ Further, many local salmon recovery groups have identified
 19 priority restoration projects which reflect the collective expertise of numerous stakeholders. A
 20 reprioritization caused by a court order which focuses on state barrier culverts would upset the
 21 apple cart.

22 Further, along with the country, the State is in the midst of a budget crisis of a scale not
 23 experienced since the great depression. All state agencies are making tough choices about
 24 what programs must be cut and deferred and for WSDOT, they include many important to the

25 ⁶⁴ 129 S. Ct. at 376.

26 ⁶⁵ *Id.* at 376-77.

⁶⁶ *Id.* at 378-9.

⁶⁷ *Id.* at 381-82.

⁶⁸ Decl. of Koenings at ¶53.

1 safety of the travelling public such as bridge preservation and road widening projects. Should
 2 it have to find more money for barrier culvert corrections, these projects may well be further
 3 postponed. Nevertheless, the evidence shows that, if left alone, WSDOT will continue to
 4 commit substantial resources into its fish passage correction program.

5 It is also in the public interest for the State to be allowed to continue to run a statewide
 6 salmon recovery program, as opposed to one that just addresses the needs of Plaintiff Tribes.
 7 Currently, WSDOT is working toward addressing all of its barrier culverts throughout the
 8 state. Although there are 941 WSDOT barriers to salmon and steelhead species of which the
 9 Tribes are concerned in this case, there are 1893 barriers to all species of fish throughout the
 10 State. While the priority index may lead the State to correct more culverts within the Case
 11 Area than outside of it, the State continues to devote substantial resources to the correction of
 12 non-case area barrier culverts as well. As the requested injunction only addresses Case Area
 13 barriers which block salmon and steelhead species, should the Court grant the requested
 14 injunction the rest of the barriers throughout the state, as well as those only affecting non-
 15 anadromous salmonids, would be at a risk of neglect. The same point holds true for salmon
 16 recovery programs outside of the Case Area – their budget would be under pressure if all
 17 salmon recovery efforts were focused by court order on the Case Area.

18 **4. In the Alternative, the Court Should Merely Monitor Continued State**
 19 **Progress.**

20 Rather than the permanent injunction that the Tribes request, a less intrusive approach
 21 would be to allow the State's program of barrier culvert prioritization and repair to continue.
 22 In *Tuttle v. Arlington County School Board*, 195 F.3d 698 (4th Cir. 1999), the Fourth Circuit
 23 reversed the imposition of a permanent injunction against a school board, despite the fact that it
 24 upheld the district court's determination that the board's admissions policy was discriminatory.
 25 The Fourth Circuit stated only evidence of bad faith could justify a remedy which would
 26 impose a more drastic approach than what was proposed by the governmental defendant:

Although the Applicants were entitled to an injunction, they were not entitled to a permanent injunction ordering the School Board to adopt a particular admissions policy. The district court should have taken the less intrusive step of continuing to monitor and review alternative programs proposed by the School Board. . . . [T]here was no reason to suspect bad faith or abdication of responsibility by the School Board that might warrant such an extreme measure.

Id. at 708.

As in *Tuttle*, there is no reason to suspect “bad faith or abdication of responsibility” on the part of the State when several state agencies have made such an effort over the past 20 years to remedy barrier culverts and improve salmon habitat, and the evidence before the Court establishes the State’s continued commitment to its program. If the Court is convinced that continuing jurisdiction is necessary, it should merely order that the State be allowed to continue with its current program which entails prioritizing projects to ensure the most benefit to fish. *See also Association of Community Organization for Reform Now (ACORN) v. Edgar*, 56 F.3d 791 (7th Cir. 1995) (“federal judicial decrees that bristle with interpretive difficulties and invite protracted federal judicial supervision of functions that the constitution assigns to state and local governments are to be reserved for extreme cases of demonstrated noncompliance with milder measures”).

B. The State Should Have Continued Discretion Regarding Culvert Design

The Court need not impose a one-size fits all culvert design because allowing the State to make the discretionary decision regarding when to deviate from the stream simulation method provides necessary flexibility. The federalism interest of comity requires that when a federal court fashions a remedy, the remedy must not exceed the scope of the violation it is meant to address.⁶⁹ In *Clark v. Coye*, the Ninth Circuit noted that minimal interference by the district court:

[i]s critical because a federal district court’s exercise of discretion to enjoin state political bodies raises serious questions regarding the legitimacy of its authority . . . [I]n reviewing a district court’s injunction against an agency of state government, we scrutinize the injunction closely to make sure that the remedy protects the plaintiffs’

⁶⁹ *Milliken v. Bradley*, 433 U.S. 267, 282 (1977).

1 federal constitutional and statutory rights but does not require more of state officials
2 than is necessary to assure their compliance with federal law.⁷⁰

3 Moreover, the federalism interest of institutional competence counsels that district courts defer
4 to state agencies with expertise to determine the methods and means for coming into
5 compliance with federal law. *See Rizzo v. Goode*, 423 U.S. 362, 379 (1976) (when crafting a
6 remedy the Court must consider the “well-established rule that the Government has
7 traditionally been granted the widest latitude in the dispatch of its own internal affairs.”). *See*
8 *also Cobell*, 428 F.3d at 1076 (“The choices at issue required both subject-matter expertise and
9 judgment about the allocation of scarce resources, classic reasons for deference to
10 administrators.”).

11 The Tribes have requested that the Court order that “the State apply the best available
12 fish passage science at the time of design, repair or replacement of culverts.”⁷¹ This issue is
13 really whether the State should be allowed to deviate from the use of stream simulation method
14 when either physical site constraints or the cost of correction greatly outweighs the limited
15 potential habitat that exists upstream.

16 With the injunction, the hardship on the State would be great. The district court must
17 consider costs of competing methods of achieving compliance with federal law, even though
18 one method is preferred by plaintiffs.⁷² The Tribes’ remedy eliminates the State’s ability to
19 perform a cost/benefit analysis to determine whether it is appropriate to use the stream
20 simulation design method in every situation. The impracticality of this remedy is most evident
21 in urban areas that have multi-lane roads with heavy traffic counts and where the associated
22 habitat is heavily degraded due to population pressures. In these situations detouring of traffic
23 becomes very expensive and closing of roads for any period of time is very difficult. Costs can
24 run upwards of \$10 million per correction. Where the potential habitat gain (and thus, benefit

25 ⁷⁰ 60 F.3d 600, 603-04. (9th Cir. 1986) .

26 ⁷¹ Pre-trial Order, pg. 4.

⁷² *Cobell* at 1078.

1 to fish) appears to be relatively small, a several hundred thousand dollar retrofit using baffles
 2 and weirs could be a reasonable alternative to a multi-million dollar replacement. WSDOT
 3 and the state legislature have long used a similar method of allocating funds to various
 4 WSDOT programs and projects, in which the costs of projects are weighed against the benefits
 5 that they will provide. *See* RCW 47.05.010 et seq. (priority programming for highway
 6 development).

7 In contrast, the hardship placed on the Tribes by continuing to permit the State
 8 discretion to choose among the three methods currently allowed by law is minimal. All three
 9 methods provide for fish passage. Although the hydraulic method uses a surrogate – the six-
 10 inch trout – in calculating water velocities that will allow for juvenile fish passage, at present
 11 the WDFW (based upon its expertise) has not decided to abandon or modify the existing
 12 design parameters. Should it do so, WSDOT and the other state agencies would have to meet
 13 the new WDFW-crafted, as opposed to court-crafted, design criteria. The potential negative
 14 impact on fish created by allowing the state to continue to use the hydraulic design method is
 15 too speculative to justify the Court’s intervention.

16 VI. CONCLUSION

17 The Court need not impose an injunction to get the State to address salmon
 18 recovery or barrier correction because it is already addressing the issues and began
 19 doing so long before this litigation commenced. *See Horne*, 129 S.Ct. at 2595 (“If a
 20 durable remedy has been implemented, continued enforcement of the order is not only
 21 unnecessary, but improper.”). The State’s existing comprehensive statewide approach
 22 to all four “Hs” (Harvest, Hatcheries, Hydropower and Habitat) that influence salmon
 23 recovery reflects the cumulative expertise of State agencies, the Tribes, federal
 24 agencies, local jurisdictions and technical groups. Included within it is the State’s
 25 considerable progress addressing its limited contribution to the barrier culvert
 26 component. Moreover, the speculative benefit to tribal harvests of only correcting state

1 barriers is insufficient to justify a court-imposed remedy which will have substantial
2 impacts on the State treasury. Should any remedy be required it should be nothing
3 more than a monitoring of the State's existing approach.
4

5 DATED this 13th day of October, 2009.

6 STATE OF WASHINGTON, Defendant

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